

Title (en)  
FABRICATION OF LUMINESCENT QUANTUM DOT THIOL-YNE NANOCOMPOSITES WITH TAILORABLE OPTICAL, THERMAL, AND MECHANICAL PROPERTIES

Title (de)  
HERSTELLUNG VON LUMINESZENTEN QUANTENPUNKT-THIOLYN-NANOKOMPOSITEN MIT ANPASSBAREN OPTISCHEN, THERMISCHEN UND MECHANISCHEN EIGENSCHAFTEN

Title (fr)  
FABRICATION DE NANOCOMPOSITES THIOL-YNE À POINTS QUANTIQUES LUMINESCENTS PRÉSENTANT DES PROPRIÉTÉS OPTIQUES, THERMIQUES ET MÉCANIQUES MODULABLES

Publication  
**EP 3694953 A4 20211013 (EN)**

Application  
**EP 18865602 A 20181005**

Priority  
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• US 2018054746 W 20181005

Abstract (en)  
[origin: US2019106624A1] This disclosure concerns a method of making a ligand for Quantum Dot functionalization, a method of making a functionalized Quantum Dot (QD) with a ligand, and a method of making a transparent luminescent quantum dot thiol-yne nanocomposite with tailorable optical, thermal, and mechanical properties. The prepolymer solution and functionalized Quantum Dot can be used in additive manufacturing.

IPC 8 full level  
**C09K 11/02** (2006.01); **C07C 323/60** (2006.01); **C08G 75/23** (2006.01); **C09K 11/88** (2006.01)

CPC (source: EP US)  
**C07C 323/60** (2013.01 - EP US); **C07D 339/04** (2013.01 - US); **C08F 138/00** (2013.01 - US); **C08G 75/23** (2013.01 - EP); **C09K 11/02** (2013.01 - EP US); **C09K 11/886** (2013.01 - EP US)

Citation (search report)  
• [IA] WO 2017019789 A1 20170202 - UNIV CALIFORNIA [US]  
• [A] WO 2010040111 A2 20100408 - LIFE TECHNOLOGIES CORP [US], et al  
• [Y] WO 2017007770 A2 20170112 - SXAYMIQ TECHNOLOGIES LLC [US]  
• [A] LIU W ET AL: "Compact biocompatible quantum dots functionalised for cellular imaging", JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, AMERICAN CHEMICAL SOCIETY, US, vol. 130, no. 4, 5 January 2008 (2008-01-05), pages 1274 - 1284, XP002511243, ISSN: 0002-7863, [retrieved on 20080105], DOI: 10.1021/JA076069P  
• [Y] BOYD DARRYL A. ET AL: "Facile Fabrication of Color Tunable Film and Fiber Nanocomposites via Thiol Click Chemistry", MACROMOLECULES, vol. 47, no. 2, 28 January 2014 (2014-01-28), US, pages 695 - 704, XP055838195, ISSN: 0024-9297, DOI: 10.1021/ma401636e  
• [A] JIN FENG ET AL: "A facile layer-by-layer assembly method for the fabrication of fluorescent polymer/quantum dot nanocomposite thin films", RSC ADVANCES, vol. 4, no. 63, 23 July 2014 (2014-07-23), GB, pages 33206, XP055838182, ISSN: 2046-2069, DOI: 10.1039/C4RA04779F  
• See references of WO 2019074803A1

Designated contracting state (EPC)  
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DOCDB simple family (application)  
**US 201816153357 A 20181005**; EP 18865602 A 20181005; US 2018054746 W 20181005; US 202117363526 A 20210630;  
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